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Worldwide Report

TELECOMMUNICATIONS POLICY, RESEARCH AND DEVELOPMENT

No. 121

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(AFTENPOSTEN, 27 Mar 80) 59

TELECOMMUNICATIONS CONGRESS CLOSES IN TOKYO

OW090608 Tokyo KYODO in English 0547 GMT 9 May 80

[Text] Tokyo, 9 May (KYODO)--The International Press Telecommunications Council closed its 15th annual congress in Tokyo Friday after making public a policy statement calling for a major reduction in telecommunications tariffs as an essential step in advancing international trade and human understanding.

The policy statement was unanimously supported by the delegates of all the organizations and nations represented at the three-day meeting, according to conference spokesmen.

The statement said, "In a world which increasingly identifies information with power it remains a principal objective of the IPTC to promote the exchange of news between the peoples of the world."

IPTC is a telecommunications organization formed by major press agencies and newspaper associations of the world.

"Essential to this promotion are the application of reasonable tariffs for international news and photo transmission, the maintenance of existing telecommunications facilities of proven usefulness, and unrestricted access to the systems," the statement said.

It also said, "Tariffs fixed by telecommunications administrations at present bear no relations to cost and serve no purpose but the profitability of monopolies.

"Actual costs incurred vary considerably depending upon circumstances but financial constraints upon administrations must not be used indefinitely as a justification for excessive tariffs for international traffic and in particular international news exchanges," the statement pointed out.

The council reelected as its chairman Chujo Watanabe, representative in Europe of Nihon Shinbun Kyokai (Japan Newspaper publishers and editors association).

The next council meeting will be held in Paris in May 1981.

CSO: 5500

PRC, NETHERLANDS HOLD POSTS, TELECOMMUNICATIONS TALKS

OW101120 Paris AFP in English 1038 GMT 10 May 80

[Text] Beijing, 10 May (AFP)--The Netherlands is to train Chinese experts in the field of posts and telecommunications, an informed source said here today.

The Dutch secretary for transportation and public works, Nelie Smit-Kroes, who is currently visiting Beijing, is to sign an agreement with China tomorrow providing for an exchange of experts and information in the field.

Mrs. Smit-Kroes has had talks with officials of several Chinese industrial ministries, including Post and Telecommunications Minister Wang Zigang.

She has also discussed advanced electronics with officials of the Fourth Ministry of Machine Building, whose concerns are essentially military.

Reliable sources also said that the Dutch-based electronics company Philips planned to give advanced training to 10 Chinese telecommunications specialists at its International Telecommunications Center.

The company is currently conducting a major exhibition of the latest telecommunications equipment in Wuhan, central China. The Dutch Post and Telecommunications Corporation has a stand at the exhibition.

Meanwhile, the sources said that a Sino-Dutch project to develop Lianyungang Port, north of Shanghai, had been frozen because of China's decision to readjust its economic priorities.

Chinese leaders have, however, expressed interest in Dutch proposals for modernization studies of the port and for related laboratory work.

China has indicated a desire to begin Beijing-Amsterdam air links in 1981, previously planned for last month but postponed after China decided it could not manage the route at this time. The Dutch airline KLM will not be allowed to serve Beijing until after inauguration of the Chinese line.

Chinese CAAC airline director Shen Tu told Mrs. Smit-Kroes that he would like to send a Chinese delegation to study the KLM computer system.

CSO: 5500

NEW BAHRAIN PHONE LINK TO U.S. TO OPEN SHORTLY

GF171107 Manama GULF MIRROR in English 17-23 May 80 p 8

[Report by Peter Witton]

[Text] Bahrain's second earth satellite station linking the island directly with the U.S. is due to be officially opened this Tuesday by HH the Amir, Shaykh 'Isa Ibn Salman al-Khalifah.

The addition of the 105-feet diameter dish and the BD5.5 million spent by Bahrain International Communications and Cable and Wireless at the Ra's Abu Jarjur station will hardly be noticed in an island where it is already possible to dial direct to New York.

But, engineers at Ra's Abu Jarjur explained, it would relieve much behind-the-scenes congestion, and calls to the U.S. will now go direct through one satellite.

At present, they said, calls go by satellite to London and then by cable across the Atlantic. This can lead to switching problems and delays of up to three-quarters of a second on voice channels, which can echo to block the system.

The need for the second station reflects the vast increase in traffic through Bahrain in recent years. Between 1970 and 1975 an average of 269,527 minutes of international telephone calls was made annually from Bahrain. In the year ending March 1980, this figure had risen to 14,074,295 minutes.

The corresponding statistics for telexes have also risen: 77,823 minutes to 5,095,820 minutes. Telegrams show a moderate increase--from 100,837 words to 119,703 words.

Bahrain is now simultaneously linked to both the Atlantic and Indian Ocean satellites and has the use of 360 channels in either direction.

Since last month, the island's original earth station dish has been realigned onto the Atlantic satellite. It now connects Bahrain to the U.S., Britain, Italy and Abu Dhabi.

When Cable and Wireless opened Ra's Abu Jarjur in 1969, Kuwait, Britain, India and Lebanon were the only places the Indian Ocean satellite could reach. This list has now grown to 17 countries with more to come.

The new station took nine months to build and is designed too for use with the next generation of satellites, Intelsat V.

CSO: 5500

BRIEFS

'ADN'-CONGOLESE PROTOCOL--Berlin--A working protocol for 1980-81, serving the further strengthening of cooperation on the basis of the existing agreement, was agreed in Berlin between ADN and the Congolese news agency, ACI. It provides for measures for extending the exchange of news and giving ACI support in training agency staff. [Text] [LD151322 East Berlin ADN International Service in German 0919 GMT 15 May 80 LD]

'TASS' SIGNS WITH 'PTI'--Moscow, 14 May, TASS--An agreement on cooperation and information exchange between the news agency of the Soviet Union (TASS) and the Press Trust of India (PTI) was signed here today. It was signed by TASS director general, Sergey Losev, and PTI general manager, Narayan Rama Chandran. The ceremony was attended by Inder Kumar Gujral, ambassador of India in the Soviet Union. During a discussion that took place the sides expressed satisfaction over the signing of the document which would promote the development of friendship and cooperation between the two countries. "The agreement," Narayan Rama Chandran said, "enshrines our common commitments to expand our area of cooperation. It is important for our organisations and our countries since it will help in increasing the understanding between our peoples. The agreement will open up new opportunities for mutually beneficial and fruitful endeavours that will serve the interests of both of us." [Text] [LD141234 Moscow TASS in English 1231 GMT 14 May 80]

'ADN'-ZAMBIAN NEWS AGENCY ACCORD--Lusaka--An agreement on the permanent exchange of news between ADN and the Zambian news agency ZANA was signed on Friday in Lusaka. The two agencies also agreed on a working protocol on cooperation and exchange of experience in the journalistic and technical sphere for the years 1980 and 1981. [Text] [LD091808 East Berlin ADN International Service in German 1528 GMT 9 May 80]

PDRY-GDR MEDIA COOPERATION--The director general of the ADEN NEWS AGENCY, Najib Muhammad Ibrahim, yesterday received the deputy director general of ADN, Rolf Schablinski. They discussed cooperation between the two agencies and ways to benefit from exchanges of experience in the technical and news fields. [Aden Domestic Service in Arabic 1630 GMT 25 Apr 80]

'VNA' AT USSR MEET--Hanoi, VNA, April 25--A delegation of the VIETNAM NEWS AGENCY led by its Deputy General Director Tran Thanh Xuan attended the meeting of socialist countries' news agencies held in Moscow on April 23-24. The other participants included news agency delegations from Bulgaria, Hungary, the German Democratic Republic, Kampuchea, Cuba, Laos, Mongolia, Poland, Romania, the Soviet Union and Czechoslovakia. The participants exchanged experiences on their work in the light of current international events. [Text] [OW251631 Hanoi VNA in English 1545 GMT 25 Apr 80]

SATELLITE GROUND STATION--The government has approved the setting up of a satellite ground station in Thailand to receive signals from U.S. satellites, according to a source in the National Research Council. He said this project will yield useful information both in surveying natural resources and in meteorology. The station will be built in the suburbs of Bangkok at a cost of 136 million baht. [BK090655 Bangkok Domestic Service in English 0000 GMT 7 May 80 BK]

CSO: 5500

BRIEFS

'VOICE OF MALAYSIA' TO EXPAND--Kuala Lumpur, 5 May (AFP)--"Suara Malaysia" (Voice of Malaysia), the overseas service of Radio and Television Malaysia (RTM) is to be beamed to more countries in Asia and later to Europe, Information Minister Datuk Mohamed Rahmat said today. The Asian countries would include those in the Indo-Chinese peninsula and Japan, he added. Datuk Mohamed did not disclose the dates the service would be beamed to the other Asian countries. However, he said a study would be made on broadcasting the service to Europe. At present, the service is beamed to Australia, New Zealand, Indonesia, the Philippines, Thailand, Burma and West Asia. It is broadcast in English, Indonesian, Tagalog, Thai, Burmese, Arabic and Malay. Datuk Mohamed said that under the expansion exercise, priority would be given to Asia. This was to enable countries in the continent to know Malaysia better. [Text] [BK061157 Hong Kong AFP in English 1308 GMT 5 May 80]

CSO: 5500

BRIEFS

EARTH SATELLITE STATIONS--Bandung, 1 May (ANTARA)--A cluster of 25 small earth satellite stations (Setasiun Bumi Kecil--SBK) is now under construction in Bandung by P.T. Anti Company following orders for them by the state-owned Telekomunikasi Corporation. Though an agreement has not yet been signed, the company falling under the authority of the Department of Public Works has started work on these small earth satellite stations, it was learned here yesterday. These small SBK's will have a capacity of 12 sound channels added by one television receiver channel, a 4.5-meter diameter antenna and to operate [as received] on the 6 GHZ band for transmissions and at 4-GHZ for receptions. Power for the stations would be supplied by diesel generators or from the state-owned electric company PLN. These SBK's were designed in such a way that they could be operated in rooms without air conditioning. Perum Telekomunikasi planned to have another 35 such Setasiun Bumi Kecil in various and remote parts of Indonesia. It was considered that the satellite communications system was most suitable for such remote and isolated areas which could not be reached by transport vehicles and other modes of communications. [Text] [BK080345 Jakarta ANTARA in English 0734 GMT 1 May 80 BK]

IRIAN JAYA TV RELAY STATION--Jakarta, 15 May (AFP)--Backward tribes in part of the hinterland of Irian Jaya (formerly West New Guinea) are having their first electronic contact with the outside world with the official opening of a new television relay station at Wamena in the Baliem River Valley of the Carstens (now renamed Jayawijaya) mountain range Wednesday [21 May]. The station with a 50-mile coverage is one of 16 built so far at the urging of the Ministry of Defence at various parts of the country considered of strategic importance, including Indonesia's last acquired province of East Timor. Altogether 92 relay stations have so far been built by the Indonesian Government throughout the vast country of far-flung islands, operating with the back-up of a modern domestic satellite communication system. [Text] [BK171057 Hong Kong AFP in English 1354 GMT 15 May 80 BK]

CSO: 5500

FACSIMILE BECOMING 100 BILLION-YEN INDUSTRY

Tokyo JOHO SANGYO SHIMBUN in Japanese 17 Mar 80 pp 6-7

[Text] Facsimiles which have undergone sudden growth are finally at the stage of blossoming out to the stage of wide use. The G III standards for high speed digital facsimiles were set up at the SG 14 meeting of the CITT (International Telegraph and Telephone Inquiry Committee) held at Kyoto last November, while the Ministry of Postal Services supervised interchange tests using different equipment as a result of which the different companies are going to high speed machines wholeheartedly. This move has finally brought international standards up to the G III level from the low speed G I level, the utilizers no longer have to worry about the problem of interchangeability of different equipment from here on as far as facsimiles are concerned, and they can now introduce facsimile machines without such concern. Calling the period from the time the Telegraph and Telephone Public Corporation made general release of communication circuits to this recent period of rapid growth the first period of popularization, this will be followed by the second stage of popularization in which interchangeable communication with all kinds of facsimiles will be possible and utilization of a degree rivaling that of the telephone may result. Facsimiles are becoming to be regarded as the "post-telephone equipment," and they will be used not only for business but the concept of home facsimiles is also being promoted. Great things are expected of facsimiles as a promising means of communication in the future.

G III Standards Are Trigger, G IV Which Utilizes DDX Also Under Study

According to the monthly statistics on machines issued by the Ministry of International Trade and Industry during 1979 (January-December), production totaled 70,023 units with 61.75 billion yen total value which are respectively 47 and 45 percent greater than the previous year. There are some makers who predict that the 100 billion yen year will possibly be attained in 1980.

A production volume of 100 billion yen means that an increase of 62 percent over the preceding year has to be realized. Now this possibility is there. The facsimile market which has strong leanings toward the evolution from low speed to medium speed and now to high speed is now at the stage that all the orders are for medium and high speed units. The G III standards were set up last year and this April will actually see the appearance of these units, but it is said that there were some sectors in which purchase of high speed machines were being made during the 1-2 year period preceding the establishment of the G III standards. Now the actual sale of G III machines will take place.

At the same time, the use of facsimiles in the past has been limited to use within one's company and to subsidiary companies in a closed type system. The establishment of standards has now opened the way to enable communication with other companies, and open utilization is becoming more popular. It is also expected that these standards will greatly enhance the export area. When all these possibilities are considered, a 62 percent increase does not seem out of the question, and the entry of facsimiles into the realm of the 100 billion a year industries is certainly no pipe dream.

The facsimile makers of Japan include Matsushita Densoki, Nippon Electric, Leco, Tokyo Shibaura Electric, Mitsubishi Electric, Oki Electric Industry, Hitachi, Ltd., Fujitsu, Casio Computers, Murata Data Equipment, Fuji Xerox, and Nippon Radio. In addition, Cannon and Sanyo Electric will initiate production this year while Sharp is expected to enter this field in the near future. In this manner, all signs point to increased production. Almost all of the makers plan service systems to be conducted by their own companies, and the feature of this sales program will be the use of sales agencies.

Facsimiles can be expected to develop the popularity of reproduction machines and telephones in the future, and the lower costs that are forthcoming will necessitate a sales system that will have to take leading roles compared to other systems. There has been increased intense competition among makers to recruit representatives who are well established on the local level and those who have a nationwide network. This [to recruit representatives] is becoming an important task for makers just as it has been in the case of competing for their market share.

In another direction, the makers are engaged in intensive research and development efforts. Any number of developments are coming forth such as the ODEFAS of Matsushita Denso which can be used as on-line terminal for computer data entry, the MELFASNET which utilizes stockpiled exchange systems of the type provided by Mitsubishi Electric, the facsimile of Nippon Electric and Hitachi which can transmit OCR characters, system FAX developed by Toshiba which can input Kanji teletype and output facsimile. In this manner, a number of computer connection systems are being developed one after the other.

At the same time, the capabilities of the facsimiles themselves are being expanded. There are those which use the ink jet recording mode, those which use 2-color mode, facsimile which gives operation commands through a voice synthesis facility, a unit which reproduces intermediate adjustments through facsimiles, and a facsimile by which A 3 originals can be transmitted. In this manner, facsimiles which can respond to the wishes of the user are being developed at the different companies.

What is being looked upon with great interest by the facsimile industry for future application is the DDX (facsimile data communication) network and home facsimile. The home facsimile concept is being promoted by the Telegraph and Telephone Public Corporation which has requested six companies to join in the development. It is said that this corporation has close to 1,000 units already delivered, and introductory tests are expected to be initiated this spring.

At the same time, there are developments which are pointed toward super high speed facsimile utilization for business purposes, and the users and makers looking in this direction are looking forward to the wide application of the DDX network. A section of the DDX network became operative at the end of last year, and there are some who look for its development as heralding the G IV standards which will be the next shot to be fired by CCITT. The G IV is the facsimile which utilizes the DDX network and it is said that digital units which can transmit without commands and MODEM at super highspeeds of 5 to 10 seconds are being studied.

Even while facsimiles are undergoing rapid growth, they are also diversifying and becoming faster operating. In addition, tie-ins with computers are being researched. All the makers are regarding facsimiles as possessing potential for future development, and it may be anticipated that even more companies will be entering this area.

Point of Effective Utilization Method and Items of Caution

The basic concept of facsimiles is the capability of transmitting a given image from one point to another point through the use of hard copy. On the other hand, the recent developments in facsimiles have added a number of other capabilites.

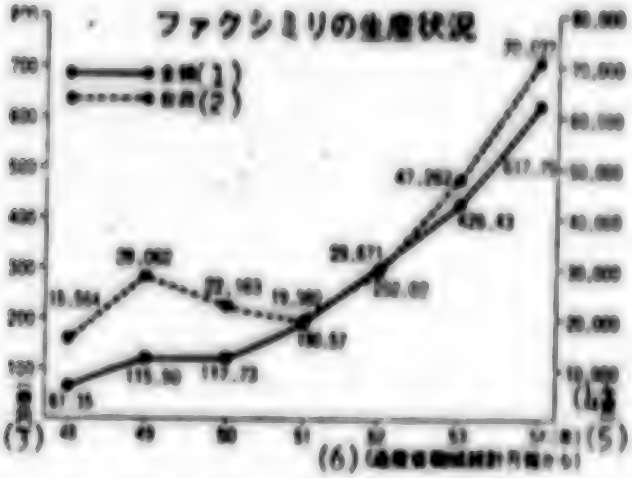
Now, what are the items to look out for in the effective utilization of facsimiles which are picking up a diverse array of capabilities? Looking first from the standpoint of introduction cost and planning cost, there is need to select low speed, medium speed, or high speed facsimile depending on the transmission distance, transmission speed, and transmission volume. In addition, one must consider the interchangeability that will be introduced in the future and select something which conforms to the international standards.

The recording mode will also become a major point in the selection. It is said that a medium speed unit will transmit about 300 copies per month on the average and a high speed unit about 1,000 copies, and one must carefully consider the paper to record all these transmissions and the toner which are all expendable items.

Looking in another direction at the capability end, an industry which does not have such a large volume to transmit does not really need an automatic paper feeding unit while a record of the transmitting source is not necessary when the transmission is limited to between two points. Facsimiles are provided with an array of capabilities, but there may be occasions in which the incorporation of accessories beyond what is required may add a number of cumbersome functions. When a large-scale facsimile system is incorporated such as by a large industry, the same can be said for a cumulative exchange system or a simultaneous information feeding system.

In any event, the effective utilization of facsimiles is the recognition of the basic functions of facsimiles. At the same time, the complete understanding of the status of the utilization side is a most important item, and a survey of this sector needs to be made before selecting the type of facsimile. Furthermore, the training of the users is a very important item after the unit has been acquired.

Production Status of Facsimiles



Key:

1) money value
2) number of units
3) 100 million yen
4) units
5) year
6) from monthly machine statistics issued by the Ministry of International Trade and Industry

1979 Exports Break the 10,000 Units Mark; High Technological Force Used To Reach Out into the World

According to the export-input statistics compiled by the Ministry of Finance, the export record for facsimiles during 1979 (January-December) was 11,930 units with value of 7.234 billion yen which represented increases of 57 and 49 percent respectively over the previous year. Export of facsimiles became active from 1978, and this is an item which is expected to see some rapid development.

The factor responsible for this growth was the establishment of the G III standards for the high speed area in the fall of last year by which means international standards were raised from the low speed G I to high speed G III. At the same time, Japan's facsimile technology ranks with the best in the world, and it is continuing to increase this margin of superiority. These are some of the reasons which can be thought to be responsible for this growth.

In this light, it has been decided that Fuji Xerox will make counter exports to the Xerox Corporation of the United States and Rank Xerox of the United Kingdom, and the facsimile import situation is close to zero. At the same time, digital type high speed facsimiles require high technological strength in which area Japan is presently in the driver's seat as far as the world market is concerned. In this manner, there are many statistics which support this present situation.

Export of facsimiles was initiated along about 1975, and Matsushita Denso and Leco are actively promoting the development of foreign markets. Matsushita Denso 3 years ago established the Panafax Corporation in the United States to set up a sales system. It is also exporting OEM to the Plesh Communication Company of the United Kingdom. Medium speed units were the main items of trade till very recently, but the ratio of high speed machines has been picking up. Leco, on the other hand, has been pushing into the world market mainly through high speed units, and it established the Rapicom Company in the United States for which it provided 100 percent of the capital. It has also set up the Carey Company (West Germany) in Europe. In addition, Hitachi signed a contract the other year with two American companies for the sale of OEM, and it is said that presently 20 percent of its monthly production or about 200 units is being exported. Oki Electric has contracts with the American facsimile maker the Muirhead Company and the Data Base Company of West Germany for the sale of OEM units, and it plans to export 10,000 units over the next 3 years. It is thought that Nippon Electric, Tokyo Shibaura Electric, and Mitsubishi Electric will soon initiate exports of OEM of their own plant products. In this manner, the export competition between Japan's makers is growing actively.

The United States accounts for about half of the exports, and the European and American markets account for more than 80 percent of the total export.

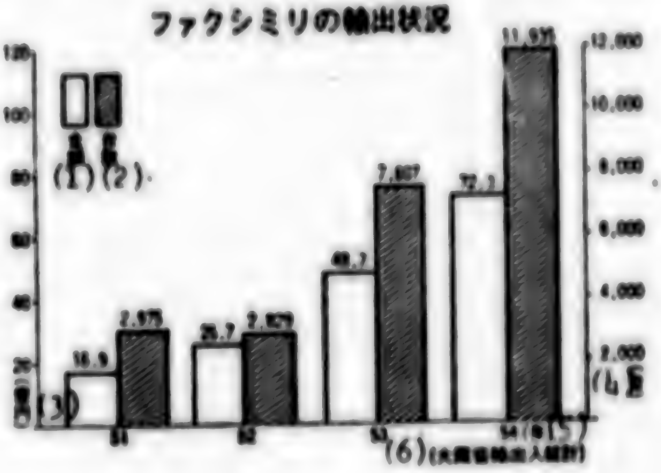
Looking at the export data to the various foreign countries for 1979, the largest volume was to the United States which was the destination ior 6,264 units (about 3.55 billion yen) followed by West Germany with 658 (about 2.422 billion yen). These were followed in the order of larger volume by the United Kingdom with 658 (about 266 million yen) [sic], Brazil with 508 units (120 million yen), Korea with 345 units (100 million yen), Sweden with 300 units (155 million yen), Australia with 158 units (669 million yen) [sic], Mexico with 125 units (35 million yen), and Taiwan with 110 units (856 million yen) [sic].

There are also exports to various other parts of the world including the Soviet Union and South Africa, but the exports to the United States dominate both in number and money value. The European exports totaled 3,688 units (2.739 billion yen).

The Americans and Europeans have become accustomed to daily use of typewriters and the daily pounding of the keys. In contrast, the practice in Japan has been the use of handwritten characters numbering several thousand as a result of which the facsimile transmission which can transmit these handwritten copies directly has found great demand in Japan. At the same time, the various makers have engaged in life or death struggle to set up their development systems and promote all out research and development as a result of which they presently have the top technological capability in the world where facsimiles are concerned.

The international standards that will make possible interchange of parts between different makes of facsimiles are almost ready, and it should become possible to interchange parts no matter where they are bought. As far as the Japanese facsimile makers who now possess the top technological know-how in the world are concerned, the world-wide market is an attractive prospect. It is expected that exports will see a great expansion this year.

Export Situation of Facsimiles



Key:

1) money value
2) number of units
3) 100 million yen
4) units
5) year
6) import-export statistics, Ministry of the Treasury

Comparisons of Performance Between Principal Medium Speed Facsimiles

(1)	(17)	(21)	(22)	(25)	(26)	(27)	(28)	[illegible]
(2)	OKIFAX [illegible]	A4 ″ ″	(23) [illegible] (24) [illegible] [illegible]	[illegible] [illegible] [illegible]	[illegible] (27) ″	[illegible] (30) (31)	(33) (34) ″	[illegible] [illegible] [illegible]
(3)	FAX [illegible]	A4 ″	[illegible] [illegible]	[illegible] [illegible]	(28) [illegible] [illegible]	[illegible] [illegible]	[illegible] ″	48 [illegible]
(4)	[illegible] (18)	A4 B4	[illegible] [illegible]	[illegible] [illegible]	[illegible] ″	[illegible] ″	[illegible] ″	[illegible] [illegible]
(5)	FAX [illegible]	A4	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
(6)	COPIX [illegible]	A4 ″ ″	[illegible] [illegible] [illegible]	[illegible] ″ [illegible]	[illegible] [illegible] ″	[illegible] (32)	[illegible] ″ ″	[illegible] [illegible] [illegible]
(7)	NEFAX [illegible]	A4 ″ ″	[illegible] [illegible] ″	[illegible] [illegible] ″	[illegible] ″ ″	[illegible] ″ ″	[illegible] [illegible] ″	[illegible] [illegible] [illegible]
(8)	[illegible] (19)	A4	[illegible]	[illegible]	[illegible]	(33) [illegible]	[illegible]	
(9)	JAX [illegible]	A4	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
(10)	HIFAX [illegible]	A4 B4 ″ A4	[illegible] [illegible] [illegible] [illegible]	[illegible] [illegible] [illegible] [illegible]	[illegible] ″ ″ [illegible]	[illegible] ″ ″ [illegible]	[illegible] ″ ″ ″	[illegible] [illegible] [illegible] [illegible]
(11)	[illegible] (20)	A4 ″	[illegible] ″	[illegible] ″	[illegible] ″	[illegible] ″	[illegible] [illegible]	[illegible] [illegible]
(12) (13)	PANAFAX (FACOM) [illegible]	A4 ″ ″ ″ ″ ″ ″ ″ ″	[illegible] [illegible] [illegible] [illegible] ″ ″ ″ ″ [illegible]	[illegible] [illegible] [illegible] ″ ″ ″ ″ ″ ″	[illegible] [illegible] ″ [illegible] ″ [illegible] ″ ″ ″	[illegible] (34) [illegible] [illegible] [illegible] (35) ″ ″	[illegible] ″ ″ ″ ″ ″ ″ ″ ″	[illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible]
(14)	MELFAS [illegible]	A4 ″ ″	[illegible] [illegible] ″	[illegible] ″ ″	[illegible] ″ ″	[illegible] ″ ″	[illegible] ″ ″	[illegible] [illegible] [illegible]
(15)	DEX [illegible]	A4 ″ ″	[illegible] [illegible] ″	[illegible] ″ ″	[illegible] ″ [illegible]	[illegible] [illegible] [illegible]	[illegible] ″ ″	[illegible] [illegible] [illegible]
(16)	RIFAX [illegible]	A4 ″	[illegible] [illegible]	[illegible] [illegible]	[illegible] [illegible]	[illegible] [illegible]	[illegible] ″	[illegible] [illegible]

Key:

1) name of maker
2) Oki Electric
3) Casio Computer
4) Cannon
5) Sanyo Electric
6) Tokyo Shibaura Electric
7) Nippon Electric
8) Japan T and T Public Corp
9) Nippon Radio
10) Hitachi, Ltd
11) Fuji Xerox
12) Matsushita Densoki
13) Fujitsu
14) Mitsubishi Electric
15) Murata Data Equipment
16) Leco
17) name of unit
18) Telefax
19) Denwafax
20) 485 Telecopier
21) size of transmitted original
22) transmission time
23) -- second ∿ -- min
24) -- min ∿ -- min
25) scanning line density (lin/mm)
26) scanning mode

[key to Comparisons of Performance... continued]

27) fixed plane
28) rotating drum
29) recording mode
30) thermosensitive
31) discharge breakdown
32) ink jet
33) current thermosensitivity
34) static electricity
35) ink jet (2 colors)
36) G II capability
37) with
38) without
39) price (10,000 yen)

Static Electricity and Thermosensitive Papers Are Main Lines of Recording Paper, Market Scale About 5 Billion Yen Yearly

The spread of facsimiles is also creating activity in the expendable supplies market. The main line of these expendable items is recording paper, and an annual value of about 5 billion yen can be placed on this market. Since the release of the general communication network in 1972, the office facsimile appeared on the scene, and the rapid growth in facsimiles that followed has been accompanied by growth in this expendable items area. International standards for facsimiles are about complete, and real growth is expected from this year. It is said that recording paper will also become a promising demand item with the increased speed and development of home facsimile, and a number of paper makers are entering the field. In another direction, the recording mode is being limited to two, and the static electricity mode for the high speed units and the thermosensitive mode for the medium speed units are taking up the lion's share of recording mode in these two areas. Here we will discuss facsimile recording paper and consider demands as well as makers' trends.

According to informed sources in the paper industry, the demand for recording paper for facsimile use most recently has been almost exclusively for static electricity and thermosensitive type recording paper with the static electricity paper accounting for 60 percent, thermosensitive for 30 percent, and the others accounting for the remaining 10 percent.

Static electricity recording paper costs 150 yen per square meter, and an average of 2 million square meters per month is consumed. The thermosensitive paper costs about 80 yen per square meter and about 700,000 square meters is consumed per average month. Converting these figures to an annual basis, the static electricity recording paper is consumed at the rate of 24 million square meters per year worth roughly 3.6 billion yen while the thermosensitive recording paper totals 8.4 million square meters worth 670 million yen. These two types of paper account for about 4.3 billion yen. The recording papers using the discharge, current thermosensitive, and vapor deposition modes total about 10 percent and 700 million yen, and the current market for recording paper is estimated to total about 5 billion yen.

As will be evident from a look at the comparison table for performance of medium speed and high speed facsimile, the static electricity recording mode is the main stream of the high speed while the thermosensitive recording mode is the main stream for the medium speed units. There has been intensified research recently on thermosensitive recording paper, and the possibility that this type of paper may begin to find its way in high speed applications is being watched with great interest.

There are many different varieties of facsimile use paper depending on the equipment used and the application, but the ideal paper should possess the following properties: 1) High recording density; 2) high degree of whiteness and good recording contrast; 3) have good picture quality and clarity; 4) have superior gradient; 5) have high speed recording potential; 6) have superior writing quality and print taking quality close to ordinary writing paper; 7) should not evolve foul order or gas and be free of toxic property; 8) copy should be readily retrievable; 9) maintain integrity in the face of temperature and humidity changes; and 10) be low in price.

The static electricity and thermosensitive recording papers are the ones that fulfill these conditions most completely. This does not mean that all the conditions are satisfied, and there are also some shortcomings. Static electricity recording paper requires not only the paper itself but a toner in order that it can be used in this expendable item role, and it costs almost twice as much as thermosensitive paper. Thermosensitive paper is easily affected by sunlight and moisture environment, and it is not only of poor storage quality but it is difficult to increase its recording speed.

On the other hand, it is clear that these two papers are superior to the others for facsimile use. Paper other than these two types which is expected to find greater use is ordinary paper using the ink jet recording mode. The ink jet mode is already being used to a limited extent in medium speed units. While ink has to be supplied, the cost is low, and multiple color facsimile can be produced comparatively easily which is drawing the attention of makers.

The makers who produce static electricity recording paper are headed by Kanzaki Paper Making along with Jujo Paper, Tomogawa Paper, and Oji Paper. These makers have expanded during the past few years with the rapid growth in high speed facsimiles, and this growth is expected to continue for a while. Because of the high cost of this paper, there has been some introduction of thermosensitive paper to high speed facsimiles. Should developments in the technology for use of thermosensitive paper in high speed facsimile be forthcoming, the possibility that thermosensitive papers will capture a large share of this market is not inconceivable. At the present time, Jujo Paper is the top maker of thermosensitive paper. It is followed by Mitsubishi Paper, Kanzaki Paper, and Tomogawa Paper. Recently Honshu Paper initiated actual production on vapor deposition paper of which it is the top maker, and this company is playing a very active role in the facsimile market. Leco and Oji Paper have also entered this field.

The item in the field of recording paper which is being watched with great interest is the increase in price. It is said that the price of paper has gone up 50-70 percent over the past year due to increased cost of raw material wood and the cost of oil which is an indirect item. On the other hand, the processing cost of facsimile paper is greater than the raw material cost, and it has been possible thus far to absorb the increased cost of raw materials. On the other hand, the ability to hold the prices through the efforts of the industry has reached its limit, and the different makers are planning 15-20 percent increases in price sometime after April.

One other problem is the standardization of recording paper. There are many examples in which a single company produces 10 or more types of paper from low speed to high speed use. While interchange of the facsimile equipment parts has become possible, the situation with the recording paper is still up in the air. Almost all of the makers use their own recording mode suited to their equipment and are using the corresponding recording paper. Even though the thermosensitive recording mode is employed, the present situation is that the temperature at which the reproduction appears can differ.

As far as the facsimile makers are concerned, improvement in picture quality is indispensable while the stand of the paper makers is that such a direction increases complexity of the production process and becomes a factor responsible for increased cost of the paper.

While there may be some indecision on the part of the facsimile makers along the sales front, the adoption of standards for everything in one sweep may be reasonable, and the situation at the present time is that there are standards established for some aspects such as the length of a roll and the diameter of the inner core of the roll. Standardization of facsimiles from G I to G III already have been introduced. It seems that the time has come for studies on the standardization of recording paper.

Future Utilization Situation of Business Use Facsimiles

The "Long Term Visionary Research for the Facsimile Industry" issued by the Economics Laboratory of the Machine Promotion Association states the following.

The area of facsimiles for business use is expected to develop at the rate of about 30 percent per year for the next 5 years and is expected to be roughly 3 times what it is today in 1983 when a market of 150 billion yen is predicted. Assuming that this growth continues another 5 years more, a demand of close to 500 billion yen may develop in 1988.

The facsimile industry at the present time is projecting developments to beyond 5 years from now and is planning spectacular moves from second generation to third generation unit development.

the second generation units are the ones which were developed as the result of the release of circuits, and they are used mainly by business and are making the transition from low speed to medium speed.

The third generation units are composite terminals for office creation use and are provided with image treatment, data processing, and docking capabilities. They are expected to make their appearance in the latter half of the 1975 decade.

Looking at the even longer term picture, facsimiles are expected to play more and more important role in the future with the development of information oriented society as was made clear by the survey conducted by the Electrical Communications Combined Laboratory. According to this survey, about 28 percent of business presently being conducted by telephone can possibly be replaced by some other means of communication, and 20.3 percent of this substitutable amount will most likely be taken over by facsimiles.

In another direction, facsimiles up to the present have been involved simply in graphical transmission, but as the move to composite nature of facsimiles continues, the utilization morphology is expected to change to greater diversity as a result of which many latent demands may spring up and introduce fresh stages of facsimile utilization.

According to the questionnaire survey conducted by the Economic Laboratory of the Machine Promotion Association, the top use of "utilization morphology of composite system" of facsimiles will be "computer input, data processing, and business management" which will account for 23.2 percent of the overall.

Furthermore, the results of the survey on "compositing capability and utilization period" gave the results in the table which follows. It can be seen that in the background of this survey is the swing from "office automation" to "office creation."

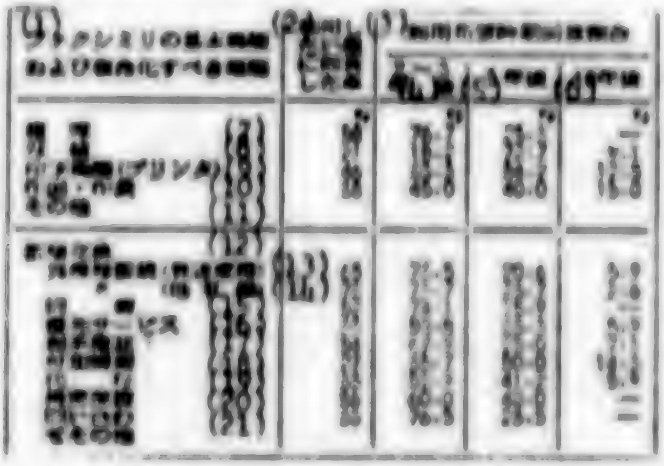
There has been a sudden acceleration in the industry's mind to rationalize, and industry considers facsimiles not simply a tool for rationalization and mechanization but as a facility which is suited to the needs of a new era in the form of "office creation" which represents a new concept in the use of office space. There is need, first of all, for some vigorous policy backup if facsimiles are to find wide use as this new type of office machine. These include comprehensive measures such as communication policies, technological policies, standards specification policies, and demand indications.

Facsimile presently has not come to the stage in the area of communication policies that it has an independent status of a picture communication machine. At the same time, the present public electrical communication laws have restrictions on other party use which stand in the way of development. In this manner, there is great need for revisions in the present laws.

Where technological policies are concerned, there is need for stabilization in product quality and costdown so that facsimiles can become widely used as a tool for office creation in the medium and small industries.

Furthermore, interchangeable connections are a fundamental condition for greater use of communication equipment. It is desirable that all facsimile equipment be freely connected with each other. This will require all-out effort on the standardization front.

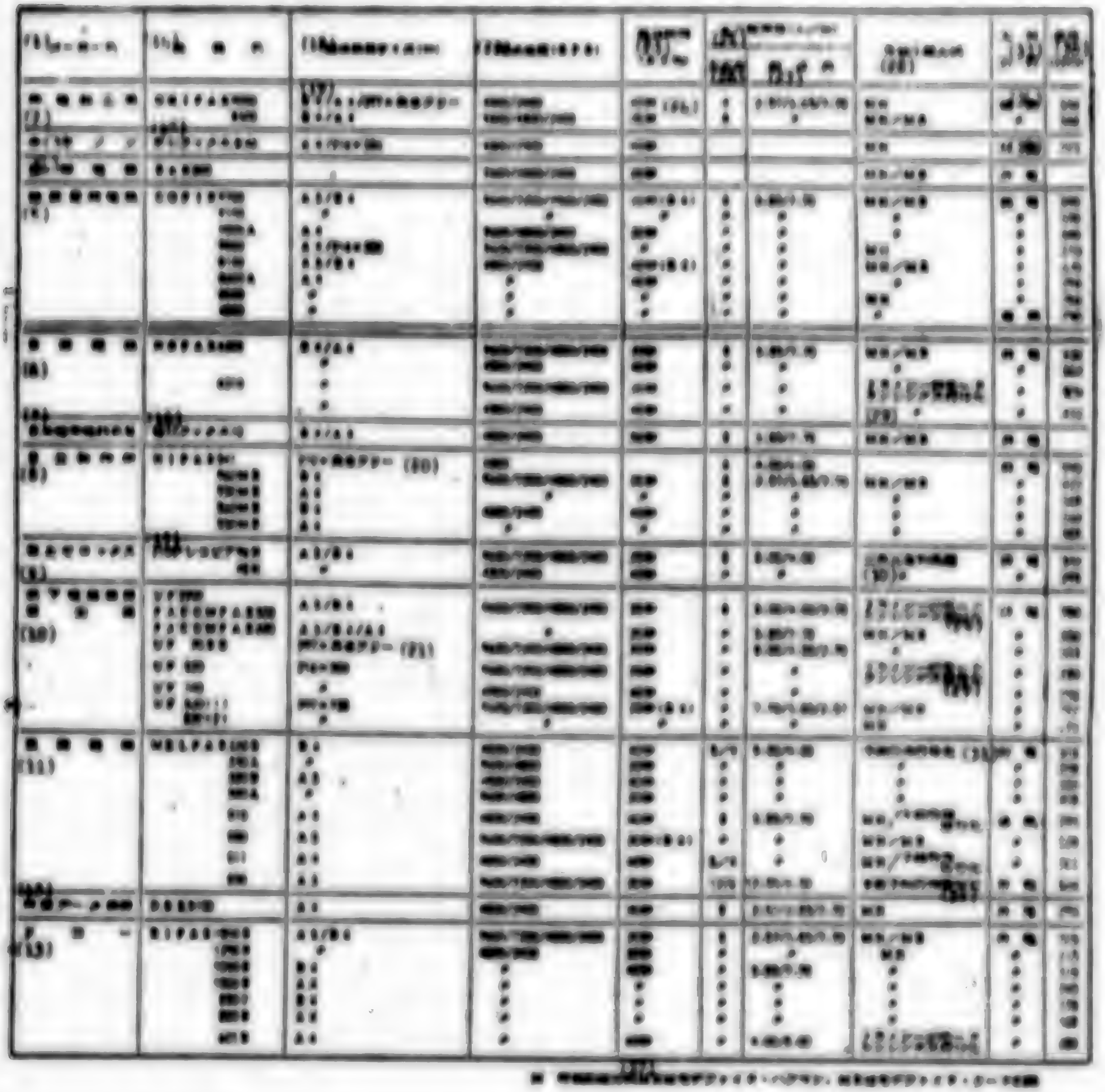
Utilization of Compositing Capability



Key:

1) basic functions and functions which need to be composited in facsimiles
2) rate of response to column on desire to utilize
3) rate of response to the time utilization is desired
4) 2-3 years later
5) 5 years later
6) 10 years later
7) photographs
8) photocomposition
9) printing capability (printer)
10) figure composition, table making
11) others
12) cumulative exchange
13) connection to different equipment (equipment with different speed)
14) connection to different equipment (equipment of other companies)
15) Doho/term not known/
16) preferential service
17) other party recognition
18) added information
19) agency function
20) assurance of secrecy
21) inquiries and other items

Comparative Performance Table of Principal High Speed Facsimiles



Key:

1)	name of maker	9)	Fuji Xerox
2)	Oki Electric Industry	10)	Matsuhita Densoki, Fujitsu
3)	Cannon	11)	Mitsubishi Electric
4)	Sanyo Electric	12)	Murata Data Equipment
5)	Tokyo Shibaura Electric	13)	Leco
6)	Nippon Electric	14)	name of equipment
7)	Japan T and T Public Corp	15)	Telefax B-0
8)	Hitachi, Ltd.	16)	Denwafax 10

[key to Comparative Performance Table...(continued)]

17) Telecoder 96H
18) size of transmitted copy
19) B4/A4/297 x free length
20) 210 x free length
21) 297 x free length
22) transmission speed
23) transmission time
24) -- seconds
25) scanning line density (line/mm)
26) main scan
27) alternate scan
28) band pressure mode
29) 2 line lumped mode lunlengs [phonetic] coded
30) 2-dimensional successive treatment
31) prediction splitting coded
32) multiple prediction splitting coded
33) recording mode
34) thermosensitive
35) static electricity
36) cost (10,000 yen)
37) band pressure more MH is modified Hoffman, MR is modified Reed abbreviations

2267
CSO: 8129/0968

BRIEFS

SATELLITE TELECOMMUNICATIONS EXPERIMENT--Tokyo, May 14 (KYODO)--The government plans to start [an] experiment next month on sending and receiving radio waves and television screen images via two stationary satellites put into orbit above the equator, the Posts and Telecommunications Ministry said Wednesday. The one-year experiment designed to back up the conventional ground-to-ground telecommunications networks in case of emergency follows the first round of mechanical tests on the satellites Sakura (Cherry Tree) and Yuri (Lily) that went into orbit in 1977 and 1978, respectively, according to the ministry. A ministry spokesman said commercial radio and TV stations as well as the Japan Broadcasting Corporation and Nippon Telegraph and Telephone Public Corporation will join in the experiment. The ministry is scheduled to launch two commercial communications satellites between 1983 and 1985, the spokesman added. [Text] [OW141301 Tokyo KYODO in English 1242 GMT 14 May 80]

CSO: 5500

NEW RANGE OF COMPUTER SYSTEM LAUNCHED

Karachi MORNING NEWS in English 29 Apr 80 p 9

[Text]At a large gathering of computer professionals and top executives of many organisations, the International Computers Limited (Pakistan) yesterday launched a new range of computer system known as ME-29 range, which will form the cornerstone of ICL's operations and expansion in Pakistan during the 1980's.

ICL's new ME-29 range is powerful, easy to use, business computer system with unrivaled versatility and allows user organisations the opportunity to attain far higher productivity. The ME-29 comes in two models, the smaller being Model 35 and the larger being Model 45. Both having all the latest peripherals.

Communications with the computer is in the form of a step-by-step conversation via the workstation. Two systems help and dialog have been developed to provide the inexperienced user with all the information needed to make effective use of the system.

A special diagnostic processor has been incorporated in the ME-29 which when used in conjunction with a detailed system Event Evaluation Guide, gives the user simple yet powerful facilities for fault investigation.

CSO: 5300

BRIEFS

TV STATION AT MUZAFFARABAD--Islamabad, May 6: The Federal Government has approved a plan to set up a television station at Muzaffarabad. The work on the proposed station will start shortly. According to the original plan, a news unit will be first established to pipe out Kashmiri news bulletins. The remaining programmes would be shown through the national hookup. Pakistan Television has been asked to work out the planning and implementation of this project. The proposed television station will also have the capability to record and transmit programmes in Kashmiri and Gojri languages. Meanwhile, the Pakistan Broadcasting Corporation has almost completed the project of a high-powered transmitter for Azad Kashmir. This transmitter will be commissioned in December this year. [Text] [Islamabad THE MUSLIM in English 7 May 80 p 1]

CSO: 5500

MEETING MARKS WORLD TELECOMMUNICATION DAY

OW161325 Beijing XINHUA in English 1248 GMT 16 May 80

[Text] Beijing, 16 May (XINHUA)--At the first public meeting held in China to mark the "World Telecommunication Day," it was reported that 96.5 per cent of China's people's communes now have telephones.

There are more than 52,000 branch post offices in the countryside, a 19-fold increase over 1949.

Hou Deyuan, vice-minister of post and telecommunications, told the meeting about the origin of the day, which is celebrated by 154 countries around the world each year on May 17.

M. Mili, secretary-general of the International Telecommunication Union, sent a message of congratulation to China for its recognition.

Nearly 1,000 people heard a lecture at today's public meeting on "Rural Telecommunications" by Zhu Bolu, deputy director and chief engineer of the Directorate-General of Telecommunications under the Ministry of Posts and Telecommunications. He said that when new China was founded in 1949, only a few large towns in China's coastal provinces had some telecommunication equipment for rural use.

Today, he added, rural telecommunication network centred on county towns has been formed across the country. For instance, he said, there are now two million switchboards serving the nation's telephone system, a 37-fold increase in the 30 years since liberation.

Zhu Bolu spoke of rural telecommunications in the industrialized countries in the world. He also said that because of outdated equipment, China's telecommunications levels are still below those of industrialized countries and improvements must be made to facilitate the development of the national economy and rural telecommunications.

CSO: 5500

BRIEFS

CURTAILMENT OF RADIO BROADCASTS--Restrictions on broadcasting in peak hours by more than 200 radio stations could possibly be included in a new package of energy saving measures, the secretary to the oil conservation committee, Mr Tophong Watchanasawat, said yesterday. He said the restrictions could mean that only 20 stations would be allowed to broadcast during peak hours. [Text] [BK010317 Bangkok BANGKOK POST in English 1 May 80 p 3]

CSO: 5500

NEW TRANSMITTING STATION INAUGURATED

BK150440 Hanoi Domestic Service in Vietnamese 1100 GMT 14 May 80

[Text] Commemorating Lenin's 110th birthday and President Ho Chi Minh's 90th birthday, on 14 May the Vietnam Radio and Television Broadcast Commission held a ceremony to inaugurate the VN-1 transmitting station built with the technical and designing assistance of the Soviet Union.

Attending the ceremony on the Vietnamese side were Hoang Tung, VCP Central Committee member and head of the Central Committee Department of Propaganda and Training representing the VCP Central Committee; Vu Tuan, VCP Central Committee member and minister of the premier's office representing the Council of Ministers; and Tran Lam, alternate member of the VCP Central Committee and head of the Vietnam Radio and Television Broadcast Commission. On the Soviet side were Chaplin, USSR ambassador plenipotentiary and extraordinary to Vietnam, and (Korachev), economic counselor of the Soviet Embassy in Vietnam.

At the ceremony, (Korachev) and Le Quy, deputy head of the Vietnam Radio and Television Commission, signed a memorandum for the acceptance of this project. On behalf of the government, Vu Tuan cut the ribbon to inaugurate the project.

The VN-1 transmitting station is a modern, compact project composed of many medium and short wave transmitters of high output. In the past 3 years, Construction Corporation No 1 and the Machinery Assembling Company of the Ministry of Building, the Electric Wire and Station Construction Enterprise of the Minister of Power and Coal, the 273d Project Construction Section of the Vietnam Radio and Television Broadcast Commission, and some other units strenuously overcame many difficulties in several fields to build the project as scheduled, achieving a high quality of construction in accordance with the technical regulations.

At the inauguration ceremony, Tran Lam warmly praised the efforts of the cadres and workers of units involved in the construction, and thanked the Soviet experts for their wholehearted and very effective guidance and assistance. The Soviet experts had enthusiastically worked together with the Vietnamese cadres and workers in the spirit of fraternal solidarity and cooperation in order to promptly complete the project.

Speaking at the ceremony, Soviet Ambassador Chaplin said: The construction of factories and enterprises throughout Vietnam--including this VN-1 transmitting station--demonstrates that the VCP and the heroic Vietnamese working class have unswervingly implemented President Ho Chi Minh's sacred testament. This project is also a symbol of friendship between the Soviet and Vietnamese peoples, communist parties and governments.

On behalf of the VCP Central Committee, Hoang Tung expressed the gratitude of the Vietnamese party, government and people to the Soviet party, government and people who have given Vietnam such valuable assistance. He entrusted the Voice of Vietnam Radio with the mission of most satisfactorily managing and using this project with high results. With this project, the Voice of Vietnam--the voice of peace and friendship--will resound far away and contribute to the world people's common cause of protecting peace.

In a jubilant and enthusiastic atmosphere, Comrade Chaplin, Hoang Tung, Vu Tuan and Tran Lam planted a souvenir tree symbolizing the fraternal solidarity, friendship and cooperation between Vietnam and the Soviet Union.

CSO: 5500

SURVEY OF PROGRESS, DEVELOPMENT MADE BY BULGARIAN TELEVISION

Sofia RADIO TELEVIZIYA ELEKTRONIKA in Bulgarian No 2, 1980 pp 2-3

[Article by Engineer D. Simov, technical director, Bulgarian Television: "Condition and Development Prospects of the Technical Base of Bulgarian Television"]

[Text] Recently, Bulgarian Television celebrated the 25th anniversary of its creation. In the course of its existence and, particularly, in recent years, Bulgarian Television established itself as a powerful ideological and information-propaganda institution. Through its specific forms of influence it is playing an active role in the ideological activities of the party and the state. It has become the main channel for the dissemination of spiritual values and an important factor in mobilizing the efforts of the people for the building of a developed socialist society.

The programs are being steadily improved, depicting ever more successfully the image of the working person, and posing more profoundly the most essential problems of our economic, political, and cultural life. Ties and cooperation with the television systems of the socialist countries, Soviet Television in particular, were expanded and intensified. Television programs show the Bulgarian people all significant events in domestic and international life.

Today Bulgarian Television emits on two channels. It averages about 100 hours weekly, 73 percent in color, and about 70 percent of original programming.

The basic prerequisites for the program successes are the expansion and improvement of television material and technical facilities.

The reconstruction of the technical base was completed in the Sixth and Seventh Five-Year plans. The modernization of the television studios was entirely completed and reorganized for programming in color. The mobile television facilities were further modernized and developed.

Technical facilities were installed for complex television reporting and for artistic forms of television filming on location--multiple camera color mobile television stations, mobile video recording, and transmission of television programs from all parts of the country. The first subprojects of the National Radio and Television Center were commissioned.

A new generation of video recorders are being applied--narrow form, with 1-inch tape width, in accordance with standard "B," offering new possibilities in the field of gathering, processing, and emitting information telecasts and the production of publicistic programs without compromising on quality and reliability.

New technology is being applied for the gathering of television information--electronic journalism. This technology is based on light transport facilities, lighter weight color television cameras and video recorders, with a 1-inch width, based on standard "B." The further development of such facilities will be based on the same standard of video recorders which, however, will use cassettes and will be even lighter.

First and second channel emissions are provided by apparatus-program blocks, structurally built on a decentralized basis, with independent program sources and the possibility for preselection of any source within and outside the complex. On the one hand, technical support makes high quality and reliable work possible; on the other, it creates the necessary conditions for creatively assembling individual parts of a program. Modern movie channels with a sliding beam are used with replaceable tape track for 35 and 16 mm and the possibility for programmed and automated color collection of the films. Video recordings are provided by video recorders which, in the future, will be locked into the automated system. The tendency in such emanations is toward converting entirely to prerecordings which insure great reliability of telecasting and are of the prerequisites for the installation of an automated control system.

In the area of studio apparatus blocks used mainly for prerecorded television programs, over the past 3 to 4 years Bulgarian Television focused its attention on and practically expanded its possibilities from the viewpoint of the artistic and creative presentation of the programs. The apparatus-studio complex consists of three apparatus-studio blocks, each of which contains a performance studio area ranging between 150 and 200 square meters. Between 1975 and 1977 all three blocks were reequipped for color television. Each of them has four television cameras. Structurally, both centralized and decentralized elements predominate.

Practical experience in the operation of contemporary and far more complex technical facilities, essentially the video mixers, offer greater possibilities for artistic and creative recreation, proving that their standard manual controls hinder their full and objective utilization. Bulgarian Television is studying the question of the utilization of modern systems with dynamic control, insuring the possibility for memorizing static conditions.

The need for topical, varied, and effective information required a specific technology for the utilization of material and technical resources in the production of such programs. This called for the separation of the information personnel and equipment as an autonomous production and emission unit with a closed technological cycle. The separation of this information unit was achieved as an autonomous information apparatus-studio complex with all other technological units required for a closed television program production cycle. The complex includes two apparatus-studio blocks of equal technological possibilities in terms of the making, processing, and emitting television information programs. Currently electronic facilities are being installed for the work of the editorial personnel.

The greater technological complexity of the production of a television program, and the interpenetration of the motion picture and television methods have raised in the area of prerecording the need for premises equipped for postfilming processing, carrying out basic preparatory processes such as the rerecording of programs, transfer of programs into different formats and standards in video recording, the subtitling of films and video recordings, and the programming of the electronic color correction of the films. Other technical equipment rooms are also being installed and developed.

As to programs with a long production cycle, it is still expedient to retain the use of two tape recorders using 2-inch tape, attentively preparing for the gradual conversion to a 1-inch width. That is why we do not intend to make any further systematic investments in 2-inch recorders, except for individual cases.

Portable technical facilities were developed in Bulgarian television following the addition of new portable television stations, portable television stations for reporting purposes; portable video recording stations and portable radio relay stations. Bearing in mind the fact that the process of creating information and feature programs demands, to an ever greater extent, telecasting under natural conditions, our attention will be focused on another technological unit: a two-camera mobile television station containing two color journalistic cameras, a one-inch video recorder, a simplified video mixer, a simplified sound equipment, and an independent power supply.

In addition to the television center in Sofia, there are four regional television centers in the country, in Plovdiv, Varna, Ruse, and Blagoevgrad. They participate in the national program with their own telecasts. Essentially, their material and technical facilities consist of an apparatus-studio block and a color four-camera mobile television station. In the course of their modernization and reconstruction, the regional television centers will convert entirely to color television equipment.

The volume of the programs emitted by Bulgarian television ranges from 50 to 80 hours weekly. By the end of 1980 it will reach 80 to 120 hours weekly.

The further development of the material and technical facilities for television will be continued in the Eighth and Ninth Five-Year plans. The main purpose will be to create conditions for the steady enrichment of artistic-creative possibilities for the production of the necessary amount of proper quality television programs, in accordance with the modern pace of development of television technology.

By 1985 both television channels must reach an overall length of 16 hours daily; by 1990 the overall annual programs will total 6,600 hours. The building of the National Radio-Television Center will be continued, so that by 1984 its first and second stages will be completed. The full completion is scheduled for 1990. The further modernization and equipment of the technical base of the central television will be continued, thus meeting the latest requirements of television production and the increased complexity of the production of television programs. The existing regional television centers will be further developed and some settlement systems will have correspondent centers operating on the okrug scale.

The introduction of new technical facilities and of highly productive and effective technologies will be consistent with the scientific and technical achievements in the field of television, on the basis of the following trends in the development of equipment and technology:

- Use of digital methods in technical facilities for the emission of a television signal--use of solid state "light" transformers;

- Use of digital methods in television signal processing;

- Application of digital methods for recording the television signal--digital video recorders for mobile depiction and memory with a high volume of information for static presentation and analysis;

- Application of filament optical systems for signal carrying and distribution;

- Time packing of the television signal with additional control, management, and information data;

- Extensive use of microprocessor systems for control and management of technical systems and individual technological processes;

- Use of motion picture technology in television production;

- Use of satellite television, and others.

Unquestionably, television is a system for social communication whose final target is the mass televiewer. Obviously, maximum satisfaction of the steadily growing needs of this huge audience, with its higher quality criteria, is a complex task which includes studio facilities, portable and emitting systems, and a variety of household technical reception facilities. The fast, high-quality coordinated solution of this problem will be fully in accordance with the infinite concern which the party, government, and, personally, Comrade Todor Zhivkov are dedicating to the development of television in our country.

5003
CSO: 5500

BRIEFS

FIBER-OPTICS PLANT CONSTRUCTION--The construction of a fiber-optics conductor plant is being initiated in Lublin where the first Polish and CEMA experimental 2.5-kilometer fiber-optics communications link, which was established in the telecommunications network between two telephone exchanges, has been successfully operating for a year. A group headed by Prof (Dr) Andrzej Waksmundzki developed the designs and production technology of the fiber-optics conductors at the Physical Chemistry Department of the Maria Curie-Sklodowski University in Lublin. [Excerpt] [Warsaw TRYBUNA LUDU in Polish 14 May 80 p 2]

CSO: 5500

BRIEFS

PANAMA, COLOMBIA SIGN AGREEMENT--On Tuesday, 13 May, engineer Rafael e Aleman, general manager of the National Telecommunications Institute [INTEL], began holding the pertinent talks with representatives of Colombia's National Telecommunications Enterprise [TELECOM] to discuss the operational, administrative and technical aspects of the project to connect the microwave networks of the two countries. The talks concluded with the signing of the respective agreements. These agreements were signed by Aleman on behalf of the INTEL and engineer Alejandro Isaza Mejia on behalf of TELECOM. Isaza Mejia is assistant executive of the TELECOM president. The project will give Panama greater capacity and flexibility in the handling of the telephone and telegraph traffic between our country and the South American countries. The same system is being used by the Central American countries. The INTEL-TELECOM project was already very advanced and it should become a reality in late 1981. This will be one more step toward the goal of the national government, which is the conquest of the Darien gap, in a very important aspect for the country's socioeconomic development: telecommunications. [Excerpt] [PA170407 Panama City MATUTINO in Spanish 15 May 80 p 1-B]

CSO: 3300

BRIEFS

FOREIGN USE OF FREQUENCIES STUDIED--The National Commission for the Study of Radio and Television Communications was sworn in a few minutes ago by President Rodrigo Carazo. This body will define the policies that are to be adopted by our government in the face of the threat posed by the coverage of frequencies by radio and television broadcasts from abroad. This poses a short-term threat to our domestic communications system, which may wind up totally covered from abroad, President Carazo said. It is expected that Costa Rica's stand at international forums will be defined through the detailed studies that are to be conducted by this commission, which is comprised of government officials and members of the National Chamber of the Media. [William Cespedes] [Excerpt] [PA142002 San Jose Radio Reloj in Spanish 1730 GMT 14 May 80]

CSO: 5500

BRIEFS

COMMUNICATIONS SATELLITE--Doha, April 30--The first Arab satellite will be launched on Dec 1982, the Saudi Daily AL JAZEERAH reported yesterday. Satellite will provide 2,000 telephone circuits for radio, telex, cable and telephone communications between the Arab countries, one thousand telephone lines for internal contacts, six T.V. channels for transmission to remote areas within the Arab countries and one T.V. channel for exchanging coloured T.V. programmes between the Arab countries. The paper said quoting Mr Abdualla Nasir, the Qatari Minister of Communications that Arab Ministers of Communications will select the company, which will construct the satellite and the site of the subsidiary station in Saudi Arabia.--IINA [Text] [Karachi MORNING NEWS in English 1 May 80 p 8]

SYRIAN-YAR COMMUNICATIONS--Damascus, 8 May--Syria and the YAR have agreed on the need to strengthen cooperation in the telecommunications field and to establish direct contact between Damascus and San'a'. The agreement took place during a meeting today between Syrian Communications Minister Ra'fat al-Kurdi and YAR Communications and Transport Minister Ahmad Muhammad al-Ansi. The two ministers also discussed means of strengthening bilateral telecommunications cooperation. The two sides signed the relevant minutes during this meeting. [Text] [JN081436 Damascus SANA in Arabic 1447 GMT 8 May 80]

CSO: 5500

BRIEFS

IZEH COMMUNICATIONS CENTER--The Telephone and Telegraph Communications Center at Izeh has resumed operations. The center had been closed by the governor of Khuzestan. The Izeh communications center has been connected with other Iranian cities due to the efforts of the Islamic Society Technical Group. [GF181240 Ahvaz Domestic Service in Persian 1230 GMT 17 May 80 GF]

CSO: 5500

AFC SIGNS CONTRACT FOR ME29 COMPUTER

Salisbury THE FINANCIAL GAZETTE in English 2 May 80 p 3

[Text] **THE Agricultural Finance Corporation is anticipating a massive expansion in its operations financing farming at all levels of agriculture, and is gearing up its administrative systems in order to cope with the increase of business.**

In a ceremony at ICL headquarters recently, a contract was signed between AFC and the computer company for an ME29 computer worth $128 000. The contract was signed by Mr David Finlay, AFC's deputy general manager (Finance) and Mr Torrie Moffat, general manager of ICL.

Following the signing, Mr Finlay explained: "AFC is the only body which can handle farming credit on the scale the country needs, and we will definitely require greater computer capacity in order to maintain our administrative functions. For some years now we have used the ICL Computer Bureau and have built up a very satisfactory relationship with the company. But now the sheer volume of business with which we anticipate having to deal means that we have had to acquire our own computer. We are very happy to have been able to buy the Model ME29 computer, which is the very latest on the market and which will suit our needs admirably."

Commenting on the transaction an ICL spokesman said that the sheer volume of data to be processed had introduced a requirement for a complete revision of the existing AFC programme.

"We have spent the past three months in a massive revision of the AFC system and we now have all of the programme material not only ready to operate on a bureau basis, but also capable of providing a smooth transition during the period in which we are setting up AFC's own computer," he said.

"The program is already written and tested, and will be provided for AFC's use on an already proven/already-running basis."

The spokesman went on to add that the ME29 computer is the latest in a line of small to medium range business machines to have been introduced by ICL.

It is capable, he said of carrying out 3 000 000 instructions per second and can operate up to 100 plus remote terminals simultaneously. It is an immensely powerful machine and has the added advantage that it is totally compatible with all the programs and systems introduced by the company for use with its earlier machines.

The ME29 was launched in Britain and South Africa last month and the AFC contract represents the first sale of this equipment in Zimbabwe.

[Photo caption] The AFC signing ceremony attended by (from left) Mr Richard Tuckniss, AFC general manager, Mr Torrie Moffat, ICL general manager and Mr David Finlay, AFC's deputy general manager (Finance). Standing looking on is Mr Geoff Hunt, a subaccountant for AFC.

CSO: 5500

BRIEFS

PRIMORSKIY KRAY COMMUNICATIONS--On the eve of the 110th anniversary of Lenin's birth a powerful transmitter for the Second Television Program was commissioned in Dalnerechensk. This gave viewers in Pozharskiy, Krasnoarmeyskiy, and Dalnerechenskiy rayons the opportunity to view two television programs. Primorskiy Kray now has universal development of radio broadcast networks and during the 10th Five-Year Plan intercity telephone and telegraph communications have been developed. Presently 27,000 Vladivostok subscribers can automatically dial subscribers in Khabarovsk, Nakhodka, Artem, Partizansk, Ussuriysk, Khorol, and Kamen-Rybalov via the automatic intercity telephone exchange in Vladivostok. Primorskiy Kray postal workers sort mail for kray residents and enterprises and also handle mail going to Kamchatka, Amgadan, and Sakhalin oblasts and overseas mail to the DPRK, SRV, Japan, New Zealand, Singapore, Thailand and other countries. [Vladivostok Domestic Service in Russian 0215 GMT 7 May 80]

CSO: 5500

ERICSSON EQUIPMENT DELAY CAUSES NORDIC DATANET POSTPONEMENT

Oslo AFTENPOSTEN in Norwegian 13 Mar 80 p 35

[Article: "Norwegian Data Network Will Be Delayed Further"]

[Text] The Nordic data network will be delayed further. Ordinary start-up was until a short time ago planned for the last quarter of this year--or approximately 1 year later than originally assumed. Now it is clear that this cannot take place until at the earliest during March or April of next year. The reason is that the Swedish L. M. Ericsson Company, which has the main contract for the system with the Norwegian Telecommunications Administration, cannot manage to deliver enough equipment at the time agreed upon. For Norway this means that the Telecommunications Administration will not be able to connect all the 1800 subscribers which they had expected in 1981.

It is engineer Per Eikeset in the Telecommunications Directorate who gives AFTENPOSTEN this information. He points out that the situation reflects the fact that the supplier probably underestimated the project. L. M. Ericsson now pays daily penalties because they have not managed to meet the contract commitments.

Engineer Eikeset maintains that the delays which have arisen have not come as a surprise. Besides, the data network will be placed in test operation during the fall, and test traffic has already started, but regular operation must wait for a few more months.

"In spite of the fact that the Nordic data network will be placed in operation later than we have led our customers to believe, here in this country we have not yet noticed any pressure from consumers. The problem is then probably bigger in Denmark and Sweden where it was planned that the start-up would take place earlier than in Norway," says Eikeset. The Norwegian Telecommunications Administration has decided to pursue a more cautious line than the departments in our neighbor countries with respect to informing the consumers when the network will be operational.

The revised point of departure before this last postponement was that the data network was to be placed in regular operation in the 4th quarter of this year. By that time L. M. Ericsson should have delivered sufficient equipment so that the telecommunications departments would have sufficient capacity to connect eve ybody who wanted it to the network. Now when the time for the start of operation has been postponed to March or April of next year, it was done to prevent having to put the consumers on a waiting list for being connected to the data network.

It is clear that the delays have created problems, primarily in Sweden and Denmark. Companies which have decided to use the Norwegian data network must twiddle their thumbs while competitors enjoy the advantages of other systems. The telecommunications administrations have put considerable pressure on L. M. Ericsson, which obviously overestimated their capacity with respect to the project. The Swedish company received the contract in competition with a Japanese equipment company, and there is probably little doubt that the consideration for Nordic electronics industry played an essential role in the decision on who would get the contract.

Department manager Knut Stafne in the Telecommunications Directorate emphasizes to AFTENPOSTEN that the Telecommunications Administration has placed great weight on obtaining a high-quality network. On the basis of this he can understand the delays which have arisen, even though he regrets what has occurred. Stafne expects that the delays will be recovered during 1982.

8958
CSO: 5500

DOMESTIC FIRMS HAVE LARGE ROLE IN TELEDATA SYSTEM

Copenhagen BERLINGSKE AFTEN in Danish 11 Apr 80 p 8

[Article by Victor Andersen: "Many Involved in Experiment with Teledata System; Video Data Banks in Århus and Copenhagen"]

[Excerpts] On the first of April of next year will begin a major experiment with teledata. As of this date data banks will be opened in Århus and Copenhagen and 200 specially selected families or businesses will be in a position to communicate with these banks from a comfortable seat in a chair in front of a television set and draw on an enormous amount of factual information--either free or for a modest fee for the information. Later the entire population will be able to take part in this promising electronic innovation. Danish industry will also gain new opportunities by virtue of teledata. Of course, English industry is at the moment boasting of being the absolute leader in this "Brave New World" field. But Danish firms like Chr. Rovsing and Bang & Olufsen can state that they, too, are involved.

More and more can be revealed of the program for the magic show which begins on April 1 next year. On this day the four telecommunications administrations will begin a two-year experiment with teledata. So-called data or video banks will be set up in Århus and Copenhagen and at the same time the telecommunications administrations will place receiving equipment free of charge at the disposal of 200 families or businesses.

Teledata exists already on a large scale in England--under the name of Prestel--just as it is in the experimental stage in a number of other countries including Sweden. Now Denmark is also to be included in the experimental stage.

One of the leaders in the launching of teledata in Denmark is Department Head Candidate of Political Science Helge Manss from KTAS [Copenhagen Telephone Company]. He relates--which will be news to the public--that the two-year experiment which is beginning here at home on 1 April 1981 will rely on not one, but two data banks. One will be set up in Århus and one in Copenhagen. The one in Århus will be taken care of by the telephone companies in Jutland and on Fyn (JTAS [Jutland Telephone Company] and FKT [Fyn Municipal Telephone Company]), while the postal service and telegraph service and KTAS will be in charge of the one in Copenhagen.

The two banks will on the whole have the same content of information and will be linked together. In this way as good as 24-hour dependable service can be guaranteed. Thereby the remote data bank system's delivery capabilities will be most realistic and the experiment can be true to life.

Silkeborg at the Center

The experiment will be practical in another way, too. The 200 selected for the experiment will have a TV set with a keyboard delivered free of charge. Anything else would be unreasonable. On the other hand they must, as takes place in the real teledata world which exists already now in England, for example, pay for part of the information they call forth on the screen. They will not pay, of course, for information which the supplier of the information itself has a strong desire to disseminate. This includes, for example Tjæreborg's travel program, which English teledata viewers can receive on their screens. But there can be other things which cost the supplier of the information something to furnish and which the viewer therefore will be asked to pay for through an automatic toll system. In this genre one can imagine a lexicon which a publisher permits to be transformed into TV screen images. At the same time sales of the lexicon in question in book form will probably go down. Therefore, it is necessary to receive payment from viewers.

The Danish guinea pigs will also pay another realistic expense. As mentioned, there must always be a telephone hooked on when one sees teledata. However, this will not be for the common trunk exchange tariff, but for a unified tariff for the whole country. Those who live out on the heath or another far away place in relation to where the data banks happen to have been placed will not suffer for this.

Helge Mansa, who is personally seeing to it that especially an always-up-to-date lexicon will be part of the content of Danish data banks, reports further that the circle of 200 Danish research subjects and businesses does not have to be permanent in the two-year research period. Since the intent is to collect as many experiences as possible, it is possible that as many as several groups will be substituted. They will however be permanently divided into 100 in Jutland and Fyn and 100 in the Copenhagen area.

One possibility is that Silkeborg will be the city where it is happening for part of the period in any case. Editor-in-Chief Viggo Sørensen, MIDTJYLLANDS AVIS, has offered to take part in an experiment in which he through his paper will warm up to the teledata bank system and in which it is also conceivable that the paper's advertisers will "play along." Through advertisements they would be able to orient the paper's readers in advance regarding what they will show over the teledata system.

By also involving businesses among those who will have receiving terminals placed at their disposal, Helge Mansa anticipates that the testing of some advanced equipment, in addition, can take place. It is possible, for instance, to equip a receiving terminal with an apparatus which can make a copy of the image on the screen. The fleeting TV picture can thereby be converted into a permanent and storable form. This is an expense which hardly any private family will incur in "real life." But the method can prove to be tempting for enterprises if it can replace other expensive forms of communication.

Helge Mansa mentions as another possibility that teledata can mean a heavy reduction in the consumption of paper since swift flows of information from the public sector which otherwise must be sent out by mail and kept in a looseleaf binder can be procured far easier by means of the teledata system.

Away with the Telephone Book?

In England the electronics industry is beating its chest as the supplier of teledata equipment to many countries. Does this mean that Danish industry will be helpless afterwards in this new field of production?

This is not the impression one gets by talking to the interested Danish firms. The two video banks are being furnished for the Danish experiment by the Chr. Rovsing firm, while the 200 terminals are being supplied by Bang & Olufsen. In behalf of Chr. Rovsing, Electronics Division Chief Asbjørn Smitt states that the Danish equipment in certain respects will be much more advanced than the English and that it very likely will have great opportunities for export. The two datamats for installation in Århus and Copenhagen, respectively, are being supplied for a combined price of three to five million kroner, which will be absolutely competitive on the world market. Furthermore, they have failure tolerance, so that a part that fails is automatically replaced by another.

The terminals in the Danish experiment will also be something special. B & O is further ahead than most similar plants. The 200 terminals are expected to be equipped with a so-called alphanumeric keyboard. This means that the user can communicate with the automatic data processor by directly writing to it in letters, while the users of the English Prestel system, for example, must use the inconvenient method of number codes.

Asbjørn Smitt anticipates--as does Helge Mansa--very significant utilization capabilities for the teledata system. For one thing, he visualizes a telephone book placed at one's disposal on the teledata screen.

If the idea spreads, the annual delivery of tons of telephone books will be able to be spared. But if the teledata system is used for this and similar things, it will have to be able to [illegible] service always and all 24 hours of the day. It is especially wi[illegible] mind that the Danish experiment will rely on two data banks covering the country and the consequent guarantee of being open round the clock.

Asbjørn Smitt affirms that the video banks in Århus and Copenhagen will have almost identical information to disseminate, but with differences which quite plainly result from their different locations. The Århus bank, for instance, will be able to be asked for the train departure times from Århus Railway Station, not from Copenhagen. It is general practical information which the bank will supply, not inspiration for a new generation of Århus historians.

8985
CSO: 5500

DANISH-DEVELOPED PHONE SYSTEM FOR DEAF READY FOR USE

Copenhagen BERLINGSKE TIDENDE in Danish 8 Apr 80 p 7

[Article: "Teletypewriter Telephone for Deaf Is To Be Introduced"]

[Text] To aid the deaf, hearing-impaired and speech-impaired, a teletypewriter telephone service with a form of miniature light signal is to be introduced now. The decision has been made by the telephone companies and postal service after a successful experimental period in which 36 handicapped people wrote to one another over the telephone system and communicated with other subscribers via a central agency which translated from the written to spoken word and vice-versa.

The new service can be established in a few months with the existing equipment. The condition is that the direct expenses are to be covered. Users will be able to get help through the assistance legislation, and this question is now being discussed by the Social Services Administration.

The equipment was developed by Civil Engineer O. Bardenfleth Nielsen at KTAS's [Copenhagen Telephone Company's] service laboratory in Copenhagen.

Instead of speaking into the receiver, the caller "writes" by means of his keyboard and the signals are then reproduced by the teletypewriter telephone's electronics as letters, numbers, punctuation marks and spaces.

Keying is quite slow; each character requires two keyboard entries, because the telephones are not equipped as ordinary typewriters.

8985
CSO: 5500

INMARSAT DIRECTOR LUNDBERG DISCUSSES ADVANTAGES FOR NORWAY

Oslo AFTENPOSTEN in Norwegian 12 Mar 80 p 30

[Article by Knut Lovstuhagen: "INMARSAT Working on the Practical Level: Our Shipowners Decide Norway's Power in the Satellite Organization"]

[Text] London, in March--The international organization for maritime satellite communication INMARSAT, which was formally established last summer, now starts to operate on the practical level from the headquarters in Market Tower in London. A request for bids was recently issued for satellite capacity which will give worldwide communication for commercial ship traffic from the beginning of 1982. Already at an early point in time the organization plans to include equipment in the satellite system which can improve the safety at sea.

It is INMARSAT's recently appointed general director, the Swede Olof Lundberg, who provides this information in a conversation with AFTENPOSTEN. It is expected that replies to the request for bids will be available early in May, and a decision on which solution the organization will adopt will probably be taken at the end of July. "When we know which type of satellite we will have and more specifically when we can place the system in operation, we can start to market the service actively," says general director Lundberg.

Satellite communication for ships today takes place via the private, American Marisat system, which includes a total of three satellites in orbit over the Pacific, the Atlantic and the Indian oceans. The fact that ground stations for handling traffic between ships and land still only exist in the United States and Japan is considered to be the main reason why this type of communication is still comparatively little used. Shipowners' offices in Europe therefore have to direct the traffic over long distances before they reach a ground station which can send the signals up to the satellite--a noticeable element which increases the costs.

This will soon be corrected. At the end of 1981 the first ground station for maritime satellite communications on this side of the Atlantic will be ready at Eik in Rogaland, and a few months later a station in Great Britain will be on the air. When that takes place, the Nordic station at Eik will handle the flow of traffic to and from the Indian Ocean, even for the British, while the installation in Great Britain in return will handle traffic between the North and ships within the area covered by the Atlantic satellite.

Evolution--Not Explosion

"When these stations become operational, it will be more reasonable to communicate via satellite," Lundberg points out. "We expect a quick development in the use of satellite communications by shipping, but without any explosion on this front. The shipowners must have time gradually to become used to the new times, and they need time to adapt their internal systems to this form of communication, but if the bottom does not drop out of the world economy, shipping in the future will be based on satellite communication. I personally believe that the conventional ship's radio station of 1995 will be a small and reasonable reserve system, but the main equipment is a satellite terminal. As the shipowners gradually get more confidence in the satellite form, they will procure simpler short-wave equipment."

General director Lundberg emphasizes that there will be a smooth transition from the Marisat to the INMARSAT system. "Ships which already have equipment for use with the American Marisat satellites will not even realize that anything has happened. The same terminals and the same frequencies will be used," he says.

Increased Safety

The satellites in the INMARSAT system will, just like today's maritime communications satellites, primarily handle telephone and telex traffic between ships and shore. They will also contain equipment which will give priority over all other traffic to possible emergency reports. The data traffic will also enter the picture. But general director Lundberg believes that new services must also come; if they do not come in the first satellites, they will come in coming generations. He is then thinking about systems which can improve safety at sea, improved navigations and meteorologic services.

"Already with the satellites which come in 1982 we hope to be able to test equipment which can pick up signals from emergency direction-finding transmitters," he says. "From a geostationary orbit 36,000 km above the world oceans, the satellites have a view like nobody else, and we plan to include this listening function as an operative service fairly quickly. In any case it will not be necessary to go 10 years before this service is established."

Today's ship ground stations, which the satellite terminals on board are generally called, cost something between 300,000 and 400,000 kroner. It is therefore not equipment which fits aboard, for instance, a fishing vessel. In that connection Lundberg mentions that within INMARSAT one has started to investigate the possibilities for developing an antenna which--in contrast to present antennas--does not have to be steered in order to pick up signals from or to transmit them to the satellite.

"An antenna like that would be much more reasonable in price because one avoids the costs associated with the equipment which, by compensating for the pitching and the yawing of the ship in the sea, keeps the antenna directed permanently toward the satellite," says Lundberg. On the other hand, the transmitted power in the satellite would have to be increased quite considerably in order to be able to use an undirected antenna, something which will make it more expensive to send traffic via the system. But for vessels which have comparatively little traffic such a system could still be advantageous, and here Lundberg is, for one thing, thinking about the fishing fleet.

Olof Lundberg, who comes from the Swedish Telephone Administration, was appointed general director for INMARSAT at a meeting of the organization's council in November of last year. He has broad experience from the long-lasting work of getting this international operating organization established. In addition to the general director's job, the positions as technical director and administrative director in INMARSAT have been filled so far, and the same holds true for the position as chief attorney, and before the end of the year it is expected that approximately 40 persons will have their daily work in the organization's secretariat in London.

The Shipowners Will Decide

INMARSAT's most important organ is the Council, which now consists of 24 members from the most important member countries. It is actually here that all important decisions will be made since the weight of the individual country's vote is decided by the investment share in the organization. The Council meets four times annually under the leadership of a chairman. The other organ in INMARSAT is the Assembly where all members are represented and where each country has one vote.

"Even if the Council is the organ which has the real power, a safety valve has still been built in. In order for a decision to be made, it must be supported by at least one-half of the Council members, and these members must represent at least two-thirds of the investment shares. This guarantees that sections will not be able to control the decisions," says Lundberg. Norway is a member of the Council, and the same holds true for Sweden and Denmark. Finland has joined through a group formed with Sweden. What influence the Nordic countries--with their strongly coinciding interests--will have in the Council in future years will actually depend upon the shipowners in these countries since the investment share--and thus the weight of the vote--will be matched to the individual country's use of the INMARSAT system, from approximately 1984.

The international organization for maritime satellite communications is now confronted with large projects. First of all, it is important to decide what type of satellites will be used in the world-encompassing system, and the organization's administrative apparatus will be built up in such a way that the satellite system can be operated. In parallel to this, large-scale marketing of the satellite services must be taken care of. "We will maintain a high, but realistic pace," says Lundberg. "On the other hand we must make sure that there is consumer interest and that the industrial interests will not control the development in future years."

8958
CSO: 5500

NEW TELECOMMUNICATIONS CHIEF WANTS MORE INDEPENDENCE

Oslo NORGES HANDELS-OG SJOFARTSTIDENDE in Norwegian 15 Mar 80 pp 1, 7

[Article: "More Money and More Independence for the Telecommunications Administration"]

[Text] The new chairman of the board of the Telecommunications Administration, administrative director Egil Abrahamsen in Det Norske Veritas, in this interview says there are good hopes for a freer and more independent position for the Telecommunications Administration.

"Ideas about more capital and more independence for the Telecommunications Administration is not a bad idea, and I personally believe that people are in favor of such a development for this department, both in parliament and in the Communications Department," says Egil Abrahamsen in a conversation with the economic policy press office.

He also touches on the Telecommunications Administration's relationship to the Norwegian electronics industry and emphasizes that it is not the Telecommunications Administration's task to conduct extensive subsidizing of Norwegian industry. "It is better if the collaboration conditions are affected by commercial competition," says the newly appointed chairman of the board, who is involved in the Norwegian economy in a series of fields.

"As the completely new chairman of the board in the Telecommunications Administration, right now I would rather not express strong opinions on how the Telecommunications Administration's relationships to the public should be solved. I would rather listen and learn for a while first. But let me specify that before I assumed the job as chairman of the board, I received a confirming reply from Communications Minister Ronald Bye saying that there was political backing for eliminating the long waiting lists for getting telephones in our country."

This is what administrative director Egil Abrahamsen in Det norske Veritas tells the economical political press office just after he took over as chairman of the board. He adds that plans are to increase the ordering program to 160,000 telephone units this year. So far the Telecommunications

Administration has appropriations for 130,000 units. The possibilities for additional appropriations are now being investigated. The increase covers the need in the Telecommunications Administration's long-range plan, which assumes that the waiting list to get telephones will disappear in the last half of the 1980's.

[Question] But are these prognoses sufficiently dynamic?

[Answer] This is a justified question. I would like to say that the prognoses seem reasonable. According to experience, 10 percent of people ordering telephones say no thank you when they get a concrete offer. In 1974-75 there was an explosion in the demand for telephones. This gave the Telecommunications Administration longer instead of shorter lists of people waiting for telephones. Ninety percent of the Telecommunications Administration's decisions are made on the basis of the need for telephones. There can naturally be explosions from time to time and changes in the forecast, but I generally believe there are reasons for maintaining that the Telecommunications Administration comes up with realistic forecasts in this connection.

Dial Tone Also Necessary

"But," continues Egil Abrahamsen, "it doesn't help much to get the public telephones if the dial tone isn't there often enough so that the sets can be used effectively. We plan to fix this as soon as possible. Today 80 percent of the calls go through. When people do not get through, 15 percent of the time it is because the numbers dialed are busy. Fifteen percent are caused by the Telecommunications Administration, something we are about to take care of in a technical sense," emphasized the new chairman of the board in the Telecommunications Administration with a relaxed smile.

He adds that industry now has 100 percent telephone coverage of its needs. "We are therefore planning to get 100 percent coverage of the families and the homes during the last half of the 1980's. Something I think we will manage."

[Question] But wouldn't a more free Telecommunications Administration be able to work more quickly and more effectively than a Telecommunications Administration which is so closely tied to parliament that the relationship must be felt as a clamp around one's foot?

Fire on the Politicians

[Answer] According to what little I have seen so far, it is my impression that the people in the Telecommunications Administration are positively engaged in giving society their very best. The employees in the Telecommunications Administration often feel frustrated when they are blamed, for instance, for the long waiting lists to get telephones. Instead of firing at the employees in the Telecommunications Administration, the criticism should be directed against the politicians who are responsible for the appropriations. The waiting list for telephones is an enormous load on the people in the department, and I both believe and know that a sincere interest prevails within the state for being able to stand more freely. It is naturally not particularly encouraging that parliament almost directs the Telecommunications Administration in details, but I do not want to back the claim that parliament is felt as a clamp around our feet.

The Telecommunications Administration is busy organizing a collaboration with the politicians. A collaboration which will ge. a good start when the telecommunications committee is appointed in the near future. The authorization is naturally parliament's business, but it is my opinion that in this committee an attempt will be made to study all sides, even the political, in the Telecommunications Administration as a department in order to make the Telecommunications Administration as effective as possible. Hereunder it should also be possible to study the Telecommunications Administration's overall position in relation to our services and our monopoly position.

A Little More Independent

"I expect," emphasizes Egil Abrahamsen, "a great deal from this initiative. I also believe that it was taken so that we could loosen up a little in the relationship to parliament and make ourselves a little more independent. Ideas such as more capital and greater independence for the Telecommunications Administration is not a bad idea. Then we only have to see what will be the result of the studies the Telecommunications Administration is carrying out. To study the relationship of the Telecommunications Administration to the department and parliament, with a view towards a softening up so that society will be served as well as possible, are signals everybody should be able to back. I personally believe there is backing for such a development both in parliament and in the Communications Department."

'No Subsidy Narcotics'

"We must have partners in industry in order to develop a good electronics and teletechnical environment. For the purchase of equipment in Norway the Telecommunications Administration has had a policy which supports Norwegian industry. I feel it is a clear goal for the Telecommunications Administration to maintain a Norwegian electronics environment. We must get a continuously more effective environment."

8958
CSO: 5500

AREA FREEZE ON MOBILE TELEPHONE LICENSES ORDERED

Oslo AFTENPOSTEN in Norwegian 14 Mar 80 p 25

[Article: "The Mobile Telephone in the Searchlight: Strong Reactions on a License Freeze"]

[Text] Mobile telephone suppliers have reacted strongly against the license freeze on VHF mobile telephones introduced by the Telecommunications Administration from 1 April in the eastern part of the country, and three of the largest suppliers in the country have asked the Telecommunications Administration to review its stand. The reaction is also directed against the entire content in an advertisement which the Telecommunications Administration has run in the daily press recently, saying, for one thing, that "already next year the manual mobile telephone will become obsolete in the eastern part of the country."

The suppliers point out that when the Telecommunications Administration started the manual mobile telephone service, this made it almost impossible to get a license for the so-called closed, or private, mobile telephone network. It is said that the Telecommunications Administration introduced a monopoly service, and when one discovers that one does not have capacity to take care of the customers, one lets potential customers suffer by introducing a license freeze.

The mobile telephone suppliers A. P. Feiring, Lehmkuhl Industries and Salora Norge have in a letter to the general director of the Telecommunications Administration, Kjell Holler, asked for a meeting with a view towards getting the Telecommunications Administration to postpone the decision about introducing a license freeze on VHF mobile telephones in the eastern part of the country starting next month. It is maintained that if this is not done, it will probably lead to layoffs in the industry. The companies have also received such a short warning in this case that they have not had an opportunity to cancel orders for equipment from the producers, and they will be sitting with large stocks.

In the industry it is said that the Telecommunications Administration will still be able to accept new users of mobile telephones if the department is willing to employ adjacent channels for the mobile telephone frequencies. The channels are now being used for other services, but it should be possible to move these services to other frequencies so that mobile telephones can use them, according to the industry's opinion.

"Through the Telecommunications Administration's advertisements, users who bought manual mobile telephones a week or more ago are suddenly confronted with a situation where the equipment will be obsolete next year when the first stage in the automatization of the mobile telephone for all of eastern Norway has been carried out. This is a strange way to say it. First of all, it will be possible to use the manual equipment for 10 years more. The Telecommunications Administration has guaranteed that--and for another thing, it will take at least 5 years before the automatic mobile telephone can be used over the entire country for those who live in the eastern part of the country," it was pointed out to AFTENPOSTEN. The claim in the advertisement that automatic mobile telephones will be much more reasonable to use than manual telephones is also something which is still up in the air, it is said, because no rates have ever been published.

First consultant Ivar Sliper in the Telecommunications Directorate tells AFTENPOSTEN that already more than a year ago the suppliers were informed that the Telecommunications Administration would be forced to impose strong restrictions on the VHF network if they did not manage to get the consumers to switch to UHF--a system which was introduced to relieve the pressure on the VHF mobile telephone, and which has a network covering the area from Lillehammer in the north to Kristiansand in the south. It has also turned out that one has not managed to create a change in the public attitude--the demand for UHF equipment is very small.

The Telecommunications Administration has evaluated a series of measures for improving the relationships in the VHF network, where it is difficult to get through today. For one thing, one has discussed employing increased fees to dampen the demand, but finally it was thus decided to introduce a freeze on licenses in the eastern part of the country.

"The letter from the three suppliers will obviously be handled in the Telecommunications Directorate, but I find it difficult to see how we can get around a freeze on licenses," says first consultant Sliper. He informs us that the use of adjacent channels, as mentioned by the telephone suppliers, has also been evaluated, but it has been decided that it would be too extensive and expensive to go to such a step. Sliper also points out that it is still possible to get a license for UHF equipment.

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NORWAY

MOBILE PHONE FREEZE CAUSED BY INSUFFICIENT CHANNELS

Oslo AFTENPOSTEN in Norwegian 27 Mar 80 p 25

[Article: "License Freeze on 1 April: Great Demand for VHF Mobile Telephones"]

[Text] The Telecommunications Directorate has evaluated the arguments which have come from the suppliers against the introduction of a freeze on licenses for VHF mobile telephones in the eastern part of the country from 1 April, but it has decided that they cannot change the decision. The public has been informed about the freeze on licenses through advertisements in the daily press, and it has obviously made people get busy procuring equipment. In the Telecommunications Directorate it was reported that while they normally receive approximately 500 applications for licenses each month, it is possible that the final number for March will lie closer to 1000 applications.

The background for the freeze on licenses is that according to the Telecommunications Administration there is no longer any frequency capacity available in the eastern part of the country for accepting additional users of VHF equipment. The suppliers believe that the problem can be solved if the Telecommunications Administration releases adjacent frequencies and thus increases the number of channels, but the Telecommunications Administration believes it will be too extensive and expensive and also involves big consequences for those who already use these frequencies. It was also pointed out that there is still unused capacity in the UHF network. However, the UHF mobile telephone system does not cover the entire country, and if there should be too big a switchover to UHF due to the freeze on VHF licenses, there will be capacity problems there too. The Telecommunications Directorate has therefore made it clear that if the demand for UHF becomes so great that there will be difficulties in handling the traffic, a freeze on licenses will be introduced after a short warning.

In the middle of 1981 it is planned that the first step of development for a Nordic, automatic mobile telephone system will be placed in operation. This will cover, for one thing, the counties which are covered by the freeze on licenses.

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